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Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	27.06.2018
Type of Mix	:	DBM
Sample I/D	:	DBM-1

GRADATION FOR DBM
(As per MORT&H 500-10,Grading-2)

Sample Location:	At plant	**Date of Sampling:**	27.06.2018
		Date of testing:	27.06.2018
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	1500.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0	0	0.00	100.00	100.00
26.50	75	75	5.00	95.00	90-100
19.00	152	227	15.13	84.87	71-95
13.20	265	492	32.80	67.20	56-80
4.750	285	777	51.80	48.20	38-54
2.360	175	952	63.47	36.53	28-42
0.300	285	1237	82.47	17.53	7-21
0.075	190	1427	95.13	4.87	2-8
Pan	73				
Total	1500.0				

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

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BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX		
Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmyraidu Krishnamurthy.
Date of Testing	:	28.06.2018
Type of Mix	:	DBM
Sample I/D	:	DBM-1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	865	880
2. Weight of Mixture after extraction, g	828	842
3. Weight of Bitumen	37	38
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	39.00	40.00
8. Bitumen content in %	4.51	4.55
9. Average Bitumen content in %	4.53	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION
(As per MORT&H 500-10,Grading-2)

Sample Location:	At site	**Date of Sampling:**	28.06.2018
		Date of testing:	28.06.2018
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	828

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	51.0	51.0	6.16	93.84	90-100
19.00	135.0	186.0	22.46	77.54	71-95
13.20	122.0	308.0	37.20	62.80	56-80
4.750	145.0	453.0	54.71	45.29	38-54
2.360	115.0	568.0	68.60	31.40	28-42
0.300	140.0	708.0	85.51	14.49	7-21
0.075	80.0	788.0	95.17	4.83	2-8
Pan	51.0				
Total	839.0				

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Yelahanka Zone
Bangalore

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BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	28.06.2018
Type of Mix	:	DBM
Sample I/D	:	DBM-1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	845	821
2. Weight of Mixture after extraction, g	809	786
3. Weight of Bitumen	36	35
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.00	4.00
6. Weight of fines, g	2.00	2.00
7. Weight of Bitumen & fines	38.00	37.00
8. Bitumen content in %	4.50	4.51
9. Average Bitumen content in %	4.50	
10. Minimum Bitumen content in %	4.50	

GRADATION FOR DBM AFTER EXTRACTION
(As per MORT&H 500-10,Grading-2)

Sample Location:	At site	**Date of Sampling:**	28.06.2018
		Date of testing:	28.06.2018
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	809

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	48.0	48.0	5.93	94.07	90-100
19.00	132.0	180.0	22.25	77.75	71-95
13.20	121.0	301.0	37.21	62.79	56-80
4.750	141.0	442.0	54.64	45.36	38-54
2.360	118.0	560.0	69.22	30.78	28-42
0.300	145.0	705.0	87.14	12.86	7-21
0.075	85.0	790.0	97.65	2.35	2-8
Pan	51.0				
Total	841.0				

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Project Division
Yelahanka Zone
Bangalore

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing :	28.06.2018
Type of Mix :	Tack coat
Sample I/D :	1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.785	0.745	0.760
Final weight of plate after application of tack Coat (c)	Kg	0.808	0.768	0.783
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing :	28.06.2018
Type of Mix :	Tack coat
Sample I/D :	1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.785	0.784	0.760
Final weight of plate after application of tack Coat (c)	Kg	0.808	0.807	0.783
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

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Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.		
Client	BRUHAT BANGALORE MAHANAGARA PALIKE		
Consultant	M/s Tejus Consultants		
Contractor	Nagineni Muniswmynaidu Krishnamurthy		
Proposed Use	BC	**Date of Sampling**	**28.06.2018**
Sample Location	At plant	**Date of Testing**	**28.06.2018**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	428.00	458.00	426.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	335.00	360.00	336.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	93.00	98.00	90.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	21.73	21.40	21.13	
5	Average Aggregate impact value	(%)	21.42			Max - 30 %

Remarks : ✓ Satisfactory / Not Satisfactory

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FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Project :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor:	Nagineni Muniswmynaidu Krishnamurthy

Type of Material	BC	**Proposed Use**	**BC**
Sample Location	At plant	**Date of Sampling**	**28.06.2018**
		Date of Testing	**28.06.2018**

Size of aggregate		**Flakiness Index**		**Elongation Index**	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A) gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	621	78	543	65
16.0	12.5	1210	110	1100	85
12.5	10.0	512	70	442	60
10.0	6.3	500	50	450	50
Total		**2843**	**308**	**2535**	**260**

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	10.83
Elongation Index(%):	10.26
Combined FI+EL (%)	21.09

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GRADATION FOR BC
(As per MORT&H 500-18,Grading-2)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing	:	28.06.2018
Type of Mix	:	BC
Sample I/D	:	BC3

Sample Location:	At plant	Date of Sampling:	28.06.2018
Type of material & Purpose:	BC	Date of testing:	28.06.2018
		Oven Dry Wt.(gms):	1200.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	153	153.0	12.75	87.25	79 - 100
9.50	133	286.0	23.83	76.17	71 - 95
4.75	215	501.0	41.75	58.25	53 - 71
2.360	130	631.0	52.58	47.42	42 - 58
1.180	132	763.0	63.58	36.42	34 - 48
0.600	85	848.0	70.67	29.33	26 - 38
0.300	124	972.0	81.00	19.00	18 - 28
0.150	65	1037.0	86.42	13.58	12 - 20
0.075	62	1099.0	91.58	8.42	4 - 10
Pan	101.0				
Total	1200.0				

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AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.		
Client	BRUHAT BANGALORE MAHANAGARA PALIKE		
Consultant	M/s Tejus Consultants		
Contractor	Nagineni Muniswmynaidu Krishnamurthy		
Proposed Use	BC	**Date of Sampling**	**29.06.2018**
Sample Location	At plant	**Date of Testing**	**29.06.2018**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	388.00	361.00	345.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	310.00	288.00	275.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	78.00	73.00	70.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	20.10	20.22	20.29	
5	Average Aggregate impact value	(%)	20.20			Max - 30 %

Remarks : ✓ Satisfactory / Not Satisfactory

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Yelahanka Zone
Bangalore

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FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Project :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor:	Nagineni Muniswmynaidu Krishnamurthy

Type of Material	BC	**Proposed Use**	**BC**
Sample Location	At plant	**Date of Sampling**	**29.06.2018**
		Date of Testing	**29.06.2018**

Size of aggregate		**Flakiness Index**		**Elongation Index**	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A) gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	636	73	560	70
16.0	12.5	1229	112	1125	85
12.5	10.0	525	72	450	60
10.0	6.3	520	56	460	50
Total		**2910**	**313**	**2595**	**265**

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	10.76
Elongation Index(%):	10.21
Combined FI+EL (%)	20.97

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TEJUS CONSULTANTS

GRADATION FOR BC
(As per MORT&H 500-18,Grading-2)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing	:	29.06.2018
Type of Mix	:	BC
Sample I/D	:	BC3

Sample Location:	At plant	Date of Sampling:	29.06.2018
Type of material & Purpose:	BC	Date of testing:	29.06.2018
		Oven Dry Wt.(gms):	1200.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	136	136.0	11.33	88.67	79 - 100
9.50	112	248.0	20.67	79.33	71 - 95
4.75	221	469.0	39.08	60.92	53 - 71
2.360	124	593.0	49.42	50.58	42 - 58
1.180	133	726.0	60.50	39.50	34 - 48
0.600	109	835.0	69.58	30.42	26 - 38
0.300	122	957.0	79.75	20.25	18 - 28
0.150	63	1020.0	85.00	15.00	12 - 20
0.075	100	1120.0	93.33	6.67	4 - 10
Pan	80.0				
Total	1200.0				

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TEJUS CONSULTANTS

Authorised Signatory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing :	29.06.2018
Type of Mix :	BC
Sample I/D :	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	860	851
2. Weight of Mixture after extraction, g	816	807
3. Weight of Bitumen	44	44
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.50	4.00
6. Weight of fines, g	2.50	2.00
7. Weight of Bitumen & fines	46.50	46.00
8. Bitumen content in %	5.41	5.41
9. Average Bitumen content in %	**5.41**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	At site	Date of Sampling:	29.06.2018
Type of material & Purpose:	**BC**	Date of testing:	29.06.2018
		Oven Dry Wt.(gms):	816.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	100	100.0	12.25	87.75	79 - 100
9.50	65	165.0	20.22	79.78	71 - 95
4.75	135	300.0	36.76	63.24	53 - 71
2.360	100	400.0	49.02	50.98	42 - 58
1.180	85	485.0	59.44	40.56	34 - 48
0.600	85	570.0	69.85	30.15	26 - 38
0.300	45	615.0	75.37	24.63	18 - 28
0.150	60	675.0	82.72	17.28	12 - 20
0.075	75	750.0	91.91	8.09	4 - 10
Pan	66.0				
Total	816.0				

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing :	29.06.2018
Type of Mix :	BC
Sample I/D :	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	861	853
2. Weight of Mixture after extraction, g	817	809
3. Weight of Bitumen	44	44
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.60	4.10
6. Weight of fines, g	2.60	2.10
7. Weight of Bitumen & fines	46.60	46.10
8. Bitumen content in %	5.41	5.40
9. Average Bitumen content in %	**5.41**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	At site	Date of Sampling:	29.06.2018
Type of material & Purpose:	**BC**	Date of testing:	29.06.2018
		Oven Dry Wt.(gms):	817.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	98	98.0	12.00	88.00	79 - 100
9.50	102	200.0	24.48	75.52	71 - 95
4.75	111	311.0	38.07	61.93	53 - 71
2.360	116	427.0	52.26	47.74	42 - 58
1.180	82	509.0	62.30	37.70	34 - 48
0.600	60	569.0	69.65	30.35	26 - 38
0.300	78	647.0	79.19	20.81	18 - 28
0.150	51	698.0	85.43	14.57	12 - 20
0.075	60	758.0	92.78	7.22	4 - 10
Pan	59.0				
Total	817.0				

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS CONSULTANTS

DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing :	29.06.2018
Type of Mix :	Tack coat
Sample I/D :	1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.785	0.789	0.753
Final weight of plate after application of tack Coat (c)	Kg	0.808	0.812	0.776
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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Yelahanka Zone
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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing :	30.06.2018
Type of Mix :	BC
Sample I/D :	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	875	850
2. Weight of Mixture after extraction, g	830	806
3. Weight of Bitumen	45	44
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.30	4.00
6. Weight of fines, g	2.30	2.00
7. Weight of Bitumen & fines	47.30	46.00
8. Bitumen content in %	5.41	5.41
9. Average Bitumen content in %	**5.41**	
10. Minimum Bitumen content in %	**5.40**	

GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

Sample Location:	At site	Date of Sampling:	30.06.2018
Type of material & Purpose:	**BC**	Date of testing:	30.06.2018
		Oven Dry Wt.(gms):	830.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	85	85.0	10.24	89.76	79 - 100
9.50	115	200.0	24.10	75.90	71 - 95
4.75	119	319.0	38.43	61.57	53 - 71
2.360	124	443.0	53.37	46.63	42 - 58
1.180	80	523.0	63.01	36.99	34 - 48
0.600	60	583.0	70.24	29.76	26 - 38
0.300	76	659.0	79.40	20.60	18 - 28
0.150	51	710.0	85.54	14.46	12 - 20
0.075	40	750.0	90.36	9.64	4 - 10
Pan	80.0				
Total	830.0				

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Yelahanka Zone
Bangalore

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswmynaidu Krishnamurthy
Date of Testing :	30.06.2018
Type of Mix :	Tack coat
Sample I/D :	1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.769	0.745	0.755
Final weight of plate after application of tack Coat (c)	Kg	0.792	0.768	0.778
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**		

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